

What is claimed is:

- 1) A high voltage resistor comprising:
  - a) an array of a plurality resistor elements having first and second  
5 ends and each of said resistor elements comprising:
    - i) an insulating tube containing a resistive fluid and having an  
electrode inserted into each end thereof;
    - b) end plates at each of said first and second ends attached to said  
resistor elements; and
    - 10 c) about the circumference of each of said end plates, a corona  
reduction ring.
- 2) The high voltage resistor of claim 1 further including high voltage  
isolation and support rods between said end plates.  
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- 3) The high voltage resistor of claim 1 wherein said electrodes are of  
stainless steel.
- 4) The high voltage resistor of claim 1 wherein said electrodes have first  
20 and second ends, said first end is mushroom shaped for ease of insertion  
into said insulating tubes and said second end is flat.

- 5) The high voltage resistor of claim 1 wherein said electrodes include at least two peripheral ridges that define a recess therebetween, said insulated tube has a periphery and said electrodes are retained in said insulated tube by means of at least one hose clamp about said periphery and said electrode in the region of said recess.
- 6) The high voltage resistor of claim 1 wherein said electrodes each have a flat end that engages one of said end plates, said end plates include end plate apertures, said flat ends include electrode apertures and bolts inserted through said end plate apertures into said electrode apertures such that said bolts attach said resistor elements to said end plates.
- 7) The high voltage resistor of claim 1 wherein said resistive solution comprises a solution of copper sulfate.
- 8) A high voltage resistor comprising:
- a) an array of a plurality resistor elements having first and second ends and each of said resistor elements comprising:
    - i) an insulating tube having first and second ends and containing a resistive fluid;
    - ii) stainless steel electrodes having a mushroom shaped first ends inserted into each of said first and second insulating tube

ends, a flat end, bolt apertures in said flat end and at least two peripheral ridges defining a recess therebetween;

iii) at least one hose clamp about each of said first and second ends of said insulating tube and each of said stainless steel electrodes retaining said electrodes in said first and second ends of said insulating tube;

iv) end plates at each of said first and second ends having end plate apertures therein attached to said resistor elements by bolts that penetrate said endplate apertures and fasten in said electrode apertures; and

v) about the circumference of each of said end plates, a corona reduction ring.

9) The high voltage resistor of claim 1 further including a carriage to which said high voltage resistor is attached.

10) The high voltage resistor of claim 8 further including a carriage to which said high voltage resistor is attached.